

## LOW-PASS FILTER USABLE WITH CALLER ID DEVICE

### ABSTRACT

An odd-order low-pass filter is disclosed for being interposed between a home  
5 telephone wiring network and a POTS, or voice-band, device to separate voice-band  
signals from higher frequency signals, such as ADSL signals and home networking  
signals. In one embodiment, the filter includes a pair of coupled inductors separated by a  
capacitor to isolate the POTS device from DSL signals. Each coupled inductor includes a  
pair of inductor windings wrapped about an inductor core. A resistive element positioned  
10 in parallel with each of the windings reduces interference between resonant xDSL signals  
and operation of an associated caller ID device.